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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,178	10/28/2003	Janne Vaananen	0365-0580P	2740

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EXAMINER

CHANG, RICHARD

ART UNIT	PAPER NUMBER
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2616

NOTIFICATION DATE	DELIVERY MODE
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07/03/2007

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/694,178

Applicant(s)

VAANANEN, JANNE

Examiner

Richard Chang

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2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claim 1 and 5 are objected to because of the following informalities:

Regarding to Claims 1 and 5, the term of subject matter "FIFO package queue (4, 5,6)" cite numbering assignment in the drawing. However, the assigned numbers (4, 5, 6) are not necessary and may cause confusion in case the drawing is updated by possible amendment.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-8 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by US patent No. 6,977,930 ("Epps et al.").

Regarding claims 1 and 5, Epps et al. teaches a method for scheduling link bandwidth between different packet-switched data flows comprising of digital data is transferred in the form of fixed- or variable-length packets (See Col. 7, lines 22-25 for both size packets), the packets are marked with identifier information (protocol identifier in header) allowing the packets to be classified into at least two classes of service (normal or to be dropped),

on the basis of the information indicating the class of service, each one of the inbound packets are individually classified into one of class of service (See Fig. 6, Col. 11, lines 15-43),

specific parallel FIFO queues (215), the number of the queues being one per each class of service at least one class of service is having its packets tagged with identifier information (protocol ID) allowing the packets to be classified into at least two internal subgroups (normal or to be dropped) within class of service (See Col. 16, line 44 to Col. 17, line 3),

packets of a given class of service form a data flow (with multiple allowable level of CoS), wherein the forwarding order of the packets is retained irrespective of the subgroup-defining identifier information carried in the packet (such as multicast group with highest priority) (See Col. 42, lines 30-62), and

the available bandwidth of the outbound link or links of the system is scheduled between said class-of-service specific FIFO queues using a weight-based scheduling discipline, a priority-based scheduling discipline (scheduling fairness is based on

bandwidth sharing as well as priority and weighted-based sharing for congestion avoidance by TBM 280) (See Col. 20, lines 39-58),

wherein the packet-specific priority value in the priority-based scheduling discipline (See Col. 17, line 64 to Col. 18, line 34) and/or the weight in the weight-based scheduling discipline (See Col. 30, lines 8-14) is determined by using the combined effect of variables q and p , whereby the value of variable q is dependent on the class of service (CoS) assigned to the data flow transferred by the packet in question and the value of variable p is dependent on the subgroup (with time to live field adjustment) whereto the packet in question belongs (to be dropped packets) and/or on the classification into subgroups of the inbound packets of the same class of service that are received at the scheduler input port preceding or following the packet in question (Class of service differentiation is achieved between CoS queues using a bandwidth sharing scheme implemented within queue manager 1210) (See Fig. 12, Col. 16, line 53 to Col. 17, line 8).

Regarding claims 2 and 6, Epps et al. further teaches that the selection between the use of a weight-based scheduling discipline is made based on the multicast subgroup following the packet in question (to be dropped) are distributed between the subgroups (See Col. 44, lines 7-25).

Regarding claims 3-4 and 7-8, Epps et al. further teaches that the weighted-based scheduling where multiples classes of traffic are combined into one queue and

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where each class of traffic uses a different set of RED control parameters (See Col. 30, lines 8-14).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Chang whose telephone number is (571) 272-3129. The examiner can normally be reached on Monday - Friday from 8 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing Chan can be reached on (571) 272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

rk
rk

Richard Chang
Patent Examiner
Art Unit 2616

Wing Chan
6/25/07
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SUPERVISORY PATENT EXAMINER